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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/821,934	04/12/2004	Osamu Shimomura	2018-876	2148

23117 7590 08/14/2006

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EXAMINER
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AURORA, REENA

ART UNIT	PAPER NUMBER
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2862

DATE MAILED: 08/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/821,934	SHIMOMURA ET AL.	
	Examiner	Art Unit	
	Reena Aurora	2862	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 May 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 2 - 6, 13 and 19 - 20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2 - 6, 13 and 19 - 20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

### **DETAILED ACTION**

This communication is in response to amendment received on 05/23/06.

Claims 2 – 6, 13 and 19 – 20 are presented for examination.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 2 – 6, 12 and 19 - 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Grancoin (3,309,642).

As to claim 2, Grancoin discloses a Hall effect rotating device comprising: a magnetic flux generating means (11, 11a, fig. 3) including a magnet for generating magnetic fluxes; a magnetism sensing element (3) responsive to the magnetic fluxes passing therethrough to detect a relative turning angle between the magnetic flux generating means (11, 11a) and the magnetism sensing element (3, air gap with Hall sensor) from the magnetic fluxes passing therethrough; and a magnetic flux reducing means (2) for passing therethrough a part of the magnetic fluxes generated by the magnet (11, 11a) thereby to reduce the magnetic fluxes passing through the magnetism sensing element only when the relative turning angle between the magnetic flux generating means and the magnetism sensing element is within a predetermined range of turning angles, wherein at least one of said- magnetic flux reducing means (2) and

said magnetic flux generating means (11) is rotatable relative to the other of said magnetic flux reducing means (2) and said magnetic flux generating means (11), and wherein the magnetic flux reducing means (2) includes an external magnetic member made of magnetic material to pass the part of the magnetic fluxes therethrough (col. 1, line 34 – line 57 ).

As to claims 3 - 4, Grancoin discloses that the magnetic flux generating means (11, 11a) includes two generally semi-cylindrical yokes made of magnetic material and sandwiching the magnet between respective circumferential ends; and the yokes have an inside shape of an ellipse (Note fig. 3).

As to claims 5 and 6, Grancoin discloses that the external magnetic member (2) is provided radially outside the magnetic flux generating means (11, 11a).

As to claim 13, Grancoin discloses a Hall effect rotating device comprising: a magnetic flux generating means (11, 11a, fig. 3) including a magnet for generating magnetic fluxes; a magnetism sensing element (3, air gap with Hall sensor) responsive to the magnetic fluxes passing therethrough to detect a relative turning angle between the magnetic flux generating means (11, 11a) and the magnetism sensing element (3) from the magnetic fluxes passing therethrough; and a magnetic flux reducing means (2) for passing therethrough a part of the magnetic fluxes generated by the magnet (11, 11a) thereby to reduce the magnetic fluxes passing through the magnetism sensing element (3) only when the relative turning angle between the magnetic flux generating means (11, 11a) and the magnetism sensing element (3) is within a predetermined range of turning angles, wherein the magnetic flux reducing means (2) includes an

external magnetic member made of magnetic material to pass the part of the magnetic fluxes therethrough, wherein the magnetic flux generating means (11, 11a) includes two generally semi- cylindrical yokes made of magnetic material and sandwiching the magnet between respective circumferential ends; and wherein the yokes have an inside shape of an ellipse (col. 1, line 34 – line 57 ).

As to claims 19 - 20, Grancoin discloses a Hall effect rotating device comprising: a magnetic flux generator (11, 11a) including a magnet for generating magnetic fluxes; a magnetism sensing element (3) responsive to the magnetic fluxes passing therethrough to detect a relative turning angle between the magnetic flux generator (11, 11a) and the magnetism sensing element (3) from the magnetic fluxes passing therethrough; and a magnetic flux reducer (2) for passing therethrough a part of the magnetic fluxes generated by the magnet thereby to reduce the magnetic fluxes passing through the magnetism sensing element (3) only when the relative turning angle between the magnetic flux generator (11, 11a) and the magnetism sensing element (3) is within a predetermined range of turning angles, wherein at least one of said magnetic flux- reducer (2) and said magnetic flux generator (11, 11a) is rotatable relative to the other of said magnetic flux reducer (2) and said magnetic flux generator (11, 11a), and wherein the magnetic flux reducer (2) includes an external magnetic member made of magnetic material to pass the part of the magnetic fluxes therethrough (col. 1, line 34 – line 57 ).

***Response to Arguments***

Applicant's arguments with respect to claims 2 – 6, 13 and 19 – 20 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Reena Aurora whose telephone number is 571-272-2263. The examiner can normally be reached on Monday - Friday, 7:00 - 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, E. Lefkowitz can be reached on 571-272-2180. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Reena Aurora